REMARKS

In response to the Examiner's Office Action of August 15, 2002, Applicant has now amended the specification and provided amended claim.

Examiner's objection to the drawing, as failing to mention items 37_d and 37_t of Fig. 1A, has now been attended to by amending the specification at page 15 in order to indicate the function of the SCSI bus items 37_d and 37_t.

The Examiner has made a further objection to the drawings, in that they did not include the reference signs mentioned in the description of step (vl) of page 30, line 30.

Examiner's objection to the statements at page 30, line 30 of the specification has now been corrected in order to more properly indicate the substance of Fig. 7B, which was incompletely stated in the original specification.

In regard to the Examiner's rejection of the claims under 35 USC Article 103(a), Applicant would now voice his traversal of the Examiner's consideration as to the obviousness of the Applicant's claims, especially in view of the attached amendments to the claims.

Regarding claims 1 through 3, Examiner has cited the reference to *Maebayashi,* U.S. Patent 5,450,589, in view of *Machado,* U.S. Patent 5,255,136, as being unpatentable for obviousness.

Maebayashi, as indicated by Examiner, does not expressly disclose the source means for a SCSI peripheral as having an SCSI drive firmware and SCSI servo firmware. Then however, Examiner cites *Machado* (Reference D) indicating that *Machado* discloses the use of disk drive firmware and servo firmware. Then, Examiner says that one of ordinary skill would have been "motivated" to update a SCSI targeted peripheral.

Further, regarding claims 1 through 3, Examiner says that *Maebayashi* does not expressly disclose that "the Central Processing Unit should have selection means for choosing single or dual two-dimension arrays". Then at this point, Examiner remarks that the *Ghia* (Reference C), U.S. Patent 5,883,852, discloses a "selection means for choosing a single or dual two-dimensional array" and thus, it would be obvious to allow selection of one or two arrays in order to expand the memory space available for the storage of the source means, or for the storage of two different source means -- and one would have been "motivated" to do this.

Regarding Applicant's claim 2, Examiner cites *Maebayashi* as teaching "a means for temporary storing different versions of said firmware".

Note, there is no <u>suggestion</u> to include the Ghia functionality.

Regarding claim 3, Examiner states that *Maebayashi* also teaches "means for checking the pre-existing firmware in said target controller".

Regarding claims 1 - 3 Examiner states that the Central Processing Unit should have a means of selecting a single or dual two-dimensional arrays even though Maebayashi <u>does not disclose</u> this in his patent. He says Ghia discloses this in his patent. Since the Central Processing Unit is unable to handle a Read or Write Command with data greater than 393,216 bytes per command it does not have the inherent capability of selecting a second or multiple software arrays to handle the splitting of the download firmware. Applicant's utility software

provides this facility to determine whether a single or a multiple software array is needed. In contrast to Applicant's software two-dimensional array, Ghia provides an SRAM (Static RAM) "hardware" single or dual two-dimensional array. Applicant, on the other hand, describes a logical array, and provides an algorithm to set aside a partition of 393,216 bytes of memory and assign software pointers to break it into blocks of 8192 bytes and send these bytes to the CPU to forward to the selected device. This involves two distinct methods, hardware and a software simulation of a hardware method. This invention method is more cost effective since hardware is normally more expensive than software.

As for determining the version of the installed firmware, a SCSI Inquiry Command is issued which returns the version of the installed firmware which Applicant's download compares with the new firmware version which is stored on a temporary header which is removed when the firmware is sent to the computer system for installation. In comparison, Applicant's download program will ask the user if he still wants to load a firmware that is of the <u>same version</u> otherwise the download program will terminate the download, since they are the same and no update is needed.

Regarding claims 4 and 6, Examiner cites *Maebayashi* in view of *Machado* and further in view of IBN Technical Disclosure Bulletin, Volume 37, Issue 10, pp. 181-186.

Regarding Applicant's claim 4, Examiner states *Maebayashi* teaches a "source means" (*Maebayashi* calls it "modification data"), and further, Examiner

indicates *Maebayashi* <u>does not</u> especially disclose that the source means for a SCSI peripheral has a SCSI disk drive firmware and SCSI servo firmware. However, at this point, Examiner cites *Machado* who discloses the use of separate disk drive firmware and servo firmware.

Thus, the Examiner comes to the conclusion it would be obvious to enclose the SCSI disk drive firmware and SCSI servo firmware of *Machado* into the source means of *Maebayashi* for a SCSI controller or peripheral, and that one would have been "motivated" to do this, for the fact that if one were updating a SCSI targeted peripheral, then the disk drive and servo firmware should be of the same version capability.

Examiner states that *Maebayashi* teaches "the central processing means for receiving said firmware . . . and utilizing a local memory" on the basis that *Maebayashi* cites the statement of "modification data . . . is transferred . . . to one of the processors . . . and held in memory". However, Examiner notes that *Maebayashi* does not expressly disclose the use of a local memory for storage of the SCSI firmware and the SCSI servo firmware -- but Examiner says *Machado* discloses the use of a separate disk drive firmware and servo firmware. Thus, Examiner concludes it would be obvious to store the modification data of *Machado* to be applied to a SCSI targeted peripheral in the local memory of *Maebayashi*. Then Examiner says one of ordinary skill would have been "motivated" to do this, so that comparison could be made with the current SCSI firmware version which is present on the targeted SCSI peripheral -- but there is no indication for a "motivation".

Examiner states that *Maebayashi* teaches a "connection means from memory to a plurality of drives, and that *Maebayashi* also teaches "the peripheral controller"

(called by *Maebayashi* as the adapter of column 8, lines 31-36). However, as stated by Examiner, *Maebayashi* <u>does not expressly disclose</u> the use of two flash PROMs. However, at this state, Examiner cites the IBM disclosure which discloses the uses of two separate flash PROMs. Examiner then concludes it would obvious for someone in the art to combine the two flash PROMs of the IBM disclosure with the peripheral controller of *Maebayashi*, and that one would have been "motivated" to do this -- to provide for backup of data storage methods if one of them failed, or the physical separation occurred of two data packages in two memory areas.

Further, Examiner states that *Maebayashi* teaches the "means to write" to the "peripheral controller" citing the *Maebayashi* statement of "transferred" and "adapter" at column 12, lines 43-45.

Regarding Applicant's claim 6, as applied to Applicant's claim 4, Examiner states *Maebayashi* <u>does not expressly</u> disclose "a means for recognizing the number of bytes of firmware to be downloaded". Examiner then states that such "means for recognizing the number of bytes of firmware to be downloaded" by the Central Processing Unit is actually a "inherent function" of the Central Processing Unit in supporting hardware/software.

> A question arises here on what basis does Examiner intimate that such an "inherent function" is the actual situation in the art?

> In regarding claims 4 and 6 some older disk drives did not offer the ability of updating the servo firmware and only the peripheral controller, or disk controller firmware was updated. Newer models of disk

drives offer the ability of updating the servo firmware by the user. Applicant's program uses a SCSI Inquiry Command and its EVPD (Enable Vital Product Data) bit to query a disk and determine whether the servo firmware can be updated. This data is unique to each vendor. Applicant's program is taking care of all the requirements of the download for the computer system. The CPU is unaware of what Applicant's download program is doing other than executing its commands and thus freeing up the CPU to perform other tasks.

Further, Examiner indicates that *Maebayashi* does not expressly disclose a means for "selecting a buffer array size". Then Examiner states that "selecting a buffer array size for the number of bytes to be downloaded" by the CPU -- is a "inherent" function of the CPU in supporting hardware.

Again, Applicant would challenge this concept of "inherency" as to this function of selecting the buffer array size. Where is the art which indicates such a function as provided by Applicant?

Regarding Applicant's claim 5, Examiner has cited the *Maebayashi* patent in view of the *Machado* patent in view of the IBM disclosure, as was applied previously to claim 4 above, and Examiner now further cites the patent of *Stupek*, U.S. 5,809,287.

Now, according to Examiner, *Maebayashi* does not expressly disclose use of the World Wide Web as the source of the firmware update means. Then Examiner goes on to make a "inference" that the World Wide Web can be described as

equivalent to a worldwide collection of network computers accessible through an online service provider. Then Examiner further adds a deduction that the *Stupek* reference discloses the use of an online service provider for obtaining a replacement or upgrade for firmware data. Thus, Examiner concludes that a skilled practitioner could obtain the necessary replacement or update firmware data of *Maebayashi* via the World Wide Web by means of the online service provider of the *Stupek* reference --- and one of ordinary skill would have been "motivated" to do this due to the tendency of users to lose/or misplace the installation or upgrade disks, and the ready accessibility of the information and the likelihood that a piece of device software will be at its newest version due to the ease of product dissemination via the World Wide Web.

This is a very interesting speculation and involves a very interesting chain of logic -- however, Applicant would take issue with this extrapolation of a series of logical sequences to be applied to Applicant's claims.

In reference to Claim 5 the <u>new firmware</u> can be downloaded from the Web, or a tape, or a floppy disk, or a CDROM and then stored temporarily on one of the systems disk drives before being downloaded to the actual target disk. While being downloaded, it will be temporarily loaded into a logical software array and sent in 8192 bytes as data encapsulated in a SCSI Write Command being sent to the peripheral string controller or to the disk controller or to the servo controller of the disk.

In regard to Applicant's claim 7, the Examiner cites the *Maebayashi* reference in view of *Machado* and the IBM disclosure (as was applied previously to claim 4) and now further in view of the American National Standards Institute (ANSI) SCSI-2 standard, X3.131-1994.

> Here, Examiner indicates that *Maebayashi* <u>does not expressly</u> disclose the identification inquiry means of a target controller as set forth by Applicants. Then, Examiner cites the ANSI standard as disclosing the means to query a target controller (1994 Standard clause 8 section 2.5). Thus, Examiner concludes it would be obvious to a person of skill to use the Inquiry command of the ANSI standard to ascertain identification and version information about a targeted controller such as shown in *Maebayashi*. Again, Examiner states one would have been "motivated" to ensure the upgrade data would not applied to a non-compatible controller or a newer firmware software version.
>
> > No evidence of such "motivation" is shown!
>
> Examiner further states that *Maebayashi* discloses the "version of firmware which will be downloaded to said target controller" (at *Maebayashi*, column 14, lines 45-50).

In regard to Applicant's claims 8 and 11, Examiner has rejected these for obviousness over *Maebayashi* in view of

Ghia. Examiner states regarding Applicant's claim 8 that *Maebayashi* discloses "a source means for the microcode firmware" (this is *Maebayashi's* modification data supply unit and modification data. Column 2, lines 19-24).

Examiner states *Maebayashi* teaches the "processor for receiving and buffering firmware (shown by *Maebayashi* as the "modification storage unit").

It is noted that Examiner indicated *Maebayashi* <u>does not especially disclose</u> "having a first and a second two-dimensional buffer array". Then Examiner cites the *Ghia* reference as disclosing a two-array memory formation (*Ghia*, Fig. 2). Then, Examiner concludes one of ordinary skill could use either the two physically separated arrays or two memory-allocated buffers of *Ghia* together with the processor of *Maebayashi*, and that one would have been "motivated" to do this to ensure survivability of firmware in case of catastrophic failure during the update process or in order to increase the amount of memory available to the firmware update package.

There is no evidence of such "motivation".

Again, Applicant would challenge this consideration from the standpoint of extreme extrapolation and gathering bits and pieces from other areas of technology in order to combine them toward negating Applicant's invention.

In regard to claims 8 and 11, Applicant's method has nothing to do with FPGA (Field Programmable Gate Arrays) or SRAMS (Static Rams) such as the ones use by Maebayashi and Ghia. These are hardware devices not

software. Basically, Applicant's invention
downloads firmware by simulating hardware
in the software download utility program.

Examiner states that *Maebayashi* teaches "means for
transferring . . . firmware onto a . . . targeted peripheral
controller . . . . As stated in the discussion of claim 11 as
applied to claim 8 above, Examiner states that *Maebayashi*
discloses the checking of the "target controller module" for
the "proper firmware" by means of detecting an error condition
(*Maebayashi*, column 15, lines 49-55).

Examiner has rejected claims 9 and 10 for
obviousness in light of *Maebayashi* in view of *Ghia* and further
in view of *Stupek*.

Regarding Applicant's claim 9, Examiner notes that
Maebayashi -- does not expressly disclose a "interface"
program whether library exported or otherwise. However,
states Examiner, the *Stupek* reference discloses the use of an
interface program for issuing a download request and for
querying a target controller. (*Stupek*, column 12, lines 29-
43).

Thus, Examiner, concludes it would be obvious for
one of ordinary skill to create such an interface program of
Stupek and insert it into the system of *Maebayashi*.

Examiner again states that one of skill would have
been "motivated" to do this, to carry out the task of
instructing the CPU to download a firmware update, telling the
CPU to store the firmware update in temporary storage, and
coordinating the firmware update data move from CPU to the
targeted controller and then querying the targeted controller.

Again, Applicant would state that Examiner
is going on a long trail of extrapolation
in order to strain every part of the

architecture in order to try to re-invent Applicant's invention.

Maebayashi discloses the means to access the firmware "release number" whereby the appropriate firmware would be selected (*Maebayashi* "version", column 14, lines 45-50).

Examiner notes that *Maebayashi* <u>does not expressly disclose</u> "a means for selecting the appropriate size of the array to store the firmware". Then Examiner "extrapolates" to say that the combination of elements set forth would enable the processor to select the appropriate size memory for the storage of the firmware.

In regard to Applicant's claim 10 (as referred to claim 8 previously), Examiner states *Maebayashi* teaches --- the means to check the pre-existing and the "current version" firmware against the "new version" of the firmware. (*Maebayashi*, column 14, lines 45-50).

Regarding Applicant's claims 12 and 13, Examiner states these are unpatentable over *Maebayashi* in view of *Stupek* and in view of the ANSI standard.

Regarding claim 12, Examiner states *Maebayashi* teaches the system comprising a "storage media" for "holding different versions" of firmware software (*Maebayashi*, column 16, lines 19-23). Then Examiner goes on to state --- that *Maebayashi* <u>does not expressly</u> disclose a "utility program" to download a firmware update. Then, Examiner cites *Stupek* as disclosing the addition to a system of a means to download a firmware software version for a targeted controller (*Stupek*, column 4, lines 34-38).

Then Examiner concludes one would have been "motivated" to retrieve from a network source and store the different versions of the firmware software package of

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Maebayashi, since one would require a means to download said firmware software package of the type that is present in *Stupek* --- and this would be done to effect the retrieval of a firmware update if the operation of the means of accumulating firmware versions for a targeted controller, was through a worldwide set of networked computers. Where is the evidence of such motivation?

Examiner notes that *Maebayashi* does not disclose an "inquiring means" for a target control module. However, Examiner cites the ANSI standard as disclosing an INQUIRY command whereby a targeted controller could be identified and the firmware requirements disclosed, and thus, it would be obvious to use the inquiry command of the ANSI standard to query this targeted SCSI controller because that is the SCSI standard of the ANSI standard when a SCSI controller is present on the system of *Maebayashi*.

Examiner says *Maebayashi* teaches a means "for fetching the appropriate firmware file". (*Maebayashi*, column 10, lines 35-44). Examiner says *Maebayashi* teaches the "selecting" of and storage in a firmware software in the storage media. (*Maebayashi*, column 11, lines 52-54), and *Maebayashi* teaches the downloading of the modified firmware software to the targeted controller. (*Maebayashi* "transferred" column 12, lines 64-67).

> Contrarily, Applicant takes what is currently available to the software, which is memory space, and creates logically two separate two dimensional arrays divided into 8192 bytes per row totaling 393,216 bytes per array for a total of 786,432 bytes. By the use offset pointers the invention is able to bypass the processor's limit of being able to send only

one Write Command with only 393,216 bytes of data. So if the firmware was larger it could not be broken up in multiple chunks. This invention by the use of offset pointers and the two dimensional arrays, is able to use a modified linked Write Command with an offset pointer and a small amount of data such 8192 bytes of data and issuing multiple commands until the 393,216 bytes of data from the first two dimensional array is sent and then proceeding with the second two dimensional array until all the bytes of the firmware have been downloaded. This was accomplished without any changes to the hardware of the system. Ghia and Maebayashi had to modify or add hardware buffering and controls to do this.

As per claim 13 of Applicant (as applied to claim 12 above), *Maebayashi* teaches the use of "version checking" of the firmware software. (*Maebayashi* column 14, lines 45-50).

Regarding Applicant's claims 14 and 15, Examiner has cited unpatentability on the basis of obviousness in view of the *Maebayashi* patent, in view of the ANSI Standard.

Examiner has noted regarding Applicant's claim 14, that *Maebayashi* does not expressly disclose the means for initiating a SCSI INQUIRY command. Then Examiner states the ANSI Standard discloses a means of querying a SCSI controller via an INQUIRY command in the form of a "modified" command descriptor block. (ANSI X3.131-1994, clause 8, section 2.5).

Then, Examiner says it would be obvious to use the inquiry command of the ANSI standard for querying the SCSI controller of *Maebayashi* -- and one would have been "motivated" to do this for the reason that

a non-standard INQUIRY command (not compliant with the ANSI Standard) would only be usable in a proprietary SCSI controller and not with the broad number of ANSI compliant SCSI controllers and peripherals.

Further, Examiner notes that *Maebayashi* does not expressly disclose the means to query a targeted controller with information from a Page Control Field. Then, Examiner states that the ANSI Standard (setting the Enable Vital Product Data EVPD) -- shall return the optional Vital Product Data specified by the Page Code Field (ANSI Standard, clause 8, section 2.5, paragraph 2), which will specify what "page of Vital Product Data information the target shall return".

Thus, Examiner concludes it would be obvious to a person of ordinary skill to use the ANSI Standard EVPD produced by the ANSI standard INQUIRY command with a specific Page Code Field to set the information necessary to "query" a designated target control module, such as that of *Maebayashi*. Then Examiner says one would have been motivated to do this to ascertain the proper firmware version to be placed on the targeted SCSI module.

Examiner also indicates that *Maebayashi* does not expressly disclose -- the means of enabling access to the firmware page number of a given target controller. However, Examiner then states it would have been clear that the elements of the EVPD data structure would enable access to and acquiring a firmware page number and firmware version number for the target control module. Here, Examiner is selecting additives to try to re-create Applicant's functionality.

Examiner states that *Maebayashi* teaches "downloading" of the firmware data via a modification data storage. (*Maebayashi* "transfer", column 12 lines 55 to 59).

Examiner states *Maebayashi* teaches "passing of firmware data" to a target control module (*Maebayashi* "transferred", column 12, lines 64-67).

As per Applicant's claim 15 (as also applied to claim 14 above) *Maebayashi* teaches the means to "sense" when a SCSI INQUIRY command fails and then sets the sense key to "ILLEGAL REQUEST" (*Maebayashi* "detects", at column 18, lines 48-51).

A general overall view of Examiner's survey of the Applicant's claim would seem to indicate that the Examiner is taking <u>bits and pieces</u> from various selected references and <u>assembling them</u> and putting them together in order to reconstruct and reinvent the invention of Applicant. Applicant contends that this is an unwarranted methodology for assessing the claims of Applicant's patent application.

These aspects of Examiner's review will be surveyed and looked at in greater detail in connection with various cited case decisions done by the courts regarding the applicable laws of patentability.

In the case of *Northern Telecom, Inc. v. DataPoint Corporation*, cited June 29, 1990 in the Court of Appeals, Federal Circuit, and reported at 15 USPQ2d, p.1321:

> Changes from prior art, whether or not they are "minor" must be evaluated in terms of the whole invention, including whether prior art provides any teaching or suggestion to one of ordinary skill in the art to make such changes to produce the patentee's method and device.

It would appear that Examiner is trying to recreate Applicant's invention by pulling up selected bits and pieces of various patent references in order to then assemble them, with the use of hindsight, in order to develop the features of Applicant's invention. In this regard, the law and case decisions are numerous which militate against the Examiner assembling bits and pieces in order to recreate Applicant's invention.

It should be reiterated that neither of the major references, or any of the minor references seem to teach or indicate or provide any intimation or suggestion that the teachings of the other references should be included into the basic reference of *Maebayashi* in order to enhance the operating system of *Maebayashi*. Thus, the fact that certain elements can be contributed by *Machado*, certain elements can be contributed by *Ghia*, certain elements can be contributed by the ANSI reference X, that certain elements can be contributed by the IBM Technical Bulletin regarding the use of a Flash PROM, and that certain elements can be included from *Stupek* certainly indicates how Examiner is assembling bits and pieces from hindsight. Applicant is providing a combinative system which will provide for enhanced downloading of firmware (Microcode) in a rapid and efficient manner, the functionality of which cannot be provided by *Maebayashi*.

The fact that Examiner is trying to engineer the *Maebayashi* reference by adding four or five additives, which have never been intimated or stated by *Maebayashi* as being useful to be added, would then tend to show that the Examiner is trying to reinvent the *Maebayashi* reference by including four or five other

additives in order to recreate Applicant's invention.

Not any single one of the references singly or even in sub-order combinations, can provide the functions and features provided by Applicant. However, if one should decide to go far enough and completely search around and find bits and pieces of various references and then say "oh, this entire network can be re-engineered to provide the substance of Applicant's invention", one would tend to think that this is certainly an unwarranted extrapolation of references in order to recreate Applicant's invention.

In the case of *In re Goodwin*, 198 USPQ1 (CCPA-1978), the Court rejected the so-called "obvious to try" standard as basis for an obviousness rejection and refused to reject a claim invention based on the prior art, where the prior art did not suggest the claimed feature. (underlines added).

In another case of *In re Geiger*, 2 USPQ2d 1276 (Federal Circuit 1987), the Court stated:

> Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absence of teachings, suggestion or incentive supporting the combination, *ACS Hospital Systems, Inc. v. Montefiore Hospital,* 221 USPQ 929, 933 (Federal Circuit 1994) 2 USPQ2d at page 1278. (underlines added).

> As reported in the Bureau of National Affairs, Patent, Trademark & Copyright Journal at page 44 of the issue of March 10, 1984, the case of *ACS Hospital Systems v. Montefiore Hospital* wherein the U.S. Court of Appeals for the Federal Circuit overruled the lower court's determination of obviousness claiming the trial judge based his

obviousness ruling on the "hindsight reconstruction" of the claimed invention. The Court indicated that the prior art failed to offer any suggestion or incentive to combine the references to produce the patented invention. The CAFC concluded that none of the references either alone or in combination, would have disclosed or suggested to one of ordinary skill the use of an override switching means in a TV rental system. Obviousness, cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. (underlines added)

In another case in the United States Court of Appeals for the Federal Circuit entitled *In re Laskowski*, CFC 88-1349, decided April 3, 1989, the Court indicated that the mere fact that the prior art could be read to embody the advantages and structure of Applicants' invention would not make the modification obvious unless the prior art suggested the desirability of the modification. The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior suggested the desirability of the modification. This was report in the BNA Patent, Trademark & Copyright Journal at page 635 of the issue dated April 13, 1989. This case was also reported in 10 USPQ2d, page 1397. (underlines added).

In a similar case report in the BNA Patent, Trademark & Copyright Journal at page 109 of the issue dated December 10, 1992, the case of *Price v. Code-Alarm, Inc.*, and decided on November 5, 1992 by the U.S. District Court of the Northern District of Illinois, it was indicated that combination claims are not invalid for obviousness merely because

similar elements appear in separate prior art references. The Court stated that one may not pick and choose among the individual elements of prior art references in order to recreate the basis of the invention. Further, the Court declared:

> A holding that combination claims are invalid based merely on finding similar elements in separate prior art patents would be "contrary to statute and would defeat the congressional purpose in enacting Title 35" . . . not only must the claim combination be considered as a whole under the express mandate of USC 103, but the prior art references must also be considered in their entireties to determine whether they suggest the desirability of making the combination which Code-Alarm asserts renders claims 7 and 8 obvious. (underlines added)

In the case of *Ex Parte Rozzi*, decided by the Board of Patent Appeals and Interferences, on January 16, 2002, it was stated as follows:

> Patent Examiner's rejections of Applicant's claims on grounds of anticipation and obviousness over prior art references are vacated, since Examiner has made no cogent attempt to read reference into independent claim in application, and therefore has not established that he determined that all limitations of Applicant's claims are explicitly or inherently described by prior art, and since Examiner's finding that independent claim is "generically" described by reference, is insufficient for obviousness rejection; Examiner's

rejection for anticipation based on second prior art reference is reversed, since that reference does not disclose the specific combination of components set out in Applicant's independent claim.

Thus, it is noted that the decision in *Rozzi* would indicate that mere generic implications that Examiner's claim would be made feasible and obvious from multiple other references would not stand the test of obviousness and anticipation.

Examiner has cited a number of situations where he claims that certain capabilities shown in Applicant's claims are "inherent" in computer systems. However, it should be noted as to what was stated in the case of *Crown Operations International, Ltd. v. Solutia, Inc.*, decided May 13, 2002, at the Court of Appeals in the Federal Circuit, which stated:

> Prior art reference will not be assumed to inherently contain claimed property merely because it discloses same structure.

In the case of *Monarch Knitting Machinery Corporation v. Sulzer Morat GmbH*, shown at 45 USPQ2d, p.1978, the question of combining references to show obviousness was discussed as follows:

> Although "trend" may constitute suggestion or teaching to one of ordinary skill in art to make "minor" changes from prior art in accordance with that trend in order to produce the claimed invention, existence of trend depends on content of prior art and trial court may not proceed to find trend without first determining whether prior art contains <u>suggestion or motivation</u> to combine references to form such trend.

It should be indicated herein that there is no suggestion or reason for motivating someone to take the *Maebayashi* reference and then search around for other elements to be incorporated into it, such as Flash PROMs from IBM or other capabilities which were shown in the *Ghia* reference or in the *Machado* reference, or which could fished out of the ANSI Standards.

In the case of the *Gentry Gallery, Inc. v. The Berkline Corporation*, decided January 27, 1998, by the U.S. Court of Appeals, Federal Circuit, as reported at 45 USPQ2d, p.1498:

> Defendant failed to establish that invention of patents for sectional sofa with console between two reclining chairs would have been obvious in view of two prior art references in combination, since mere possibility that references could have been combined is insufficient to demonstrate that claimed invention would have been obvious, in that invention of patent requires "fixed console" between recliners, which neither reference provided and since even if claimed invention only involved physical insertion of free-standing recliner of first reference into second sectional sofa of second reference, such simplicity alone is not determinative of obviousness.

Again, on the question of combining references and obviousness, there is cited the case of *WMS Gaming, Incorporated v. International Game Technology*, decided July 20, 1999, by the U.S. Court of Appeals, Federal Circuit, where it was stated:

Federal District Court did not clearly err in finding that invention of patent for virtual reel slot machine <u>would not have been obvious in light of three prior art references in combination</u>, since, accepting District Court's finding that prior art machines merely simulate physical reels of standard mechanical slot machine, it was not clear error for Court to conclude that those machines do not teach non-uniform mapping of numbers to stop positions on machines' reels in order to decrease odds of winning, as claimed in patent, since there is <u>nothing in those references that indicates motivation to combine</u> their teachings with those of third reference that teaches every aspect of claimed invention except non-uniform mapping of numbers to stop positions, and since infringement plaintiff presented objective evidence of non-obviousness in form of commercial success and long usage.

It should be emphasized that Applicant's invention is a <u>software-implemented functionality</u> and not a concatenation of hardware modules as utilized in the cited references.

All the other cited inventions have claims incorporating hardware additions or modifications in order to perform what Applicant's invention has been able to do with <u>no hardware additions or modifications</u>.

Thus, Applicant's invention should be viewed as a whole in its entirety and not an accumulation of others' bits and pieces, while also providing a unique functionality which NONE of the cited references can provide. Thus, Applicant

prays that Examiner now provide a timely Notice of Allowance on the attached claims.

Respectfully submitted,

By _Alfred W. Kozak_
Alfred W. Kozak
Reg. No. 24,265
(858) 451-4615

APPENDIX TO SPECIFICATION CHANGES

(VERSION WITH MARKINGS TO SHOW CHANGES MADE)

At page 15, line 13, the paragraph has been changed as follows:

The firmware is then passed to the peripheral controller 40d which can then load this on to the disk drive 50. The firmware in memory 35 is transmitted to peripheral controllers 40_d and 40_t as in time respectively via the SCSI busses 37_d and 37_t.

At page 30, lines 29-31, the paragraph has been changed as follows:

It may be noted that steps (vf), (vg), (vk), [(vh)] and [(vl)] (vi) have a [NO] "NO" sequence which continues via mark J to Fig. 7A at step (viii), Terminate.

MARKED-UP VERSION OF AMENDED

AND EXTANT CLAIMS

1. (Amended) A system for downloading firmware from a source module onto a controller of a storage medium with minimal latency of operation comprising:

> (a) source means providing SCSI firmware for a disk drive and servo SCSI firmware for positioning said disk drive;

> (b) a central processing unit having <u>software programmable</u> selection means for choosing single or dual two-dimensional array means for temporary storing said firmware prior to placement onto a target peripheral controller for said disk drive[.]<u>;</u>

> <u>(c) means for temporarily storing different versions of said firmware until said target controller has been accessed to identify the proper version of firmware required;</u>

> <u>(d) means for checking the pre-existing firmware in said target controller to determine whether an updated firmware version will be required for a subsequent download.</u>

4. (As-is) A system for downloading SCSI firmware and SCSI servo firmware in a rapid fashion onto a target control module, said system comprising:

(a) a source means for said SCSI firmware and SCSI servo firmware;

(b) central processing means for receiving said firmware from said source means and utilizing a local memory means for separate storage areas for SCSI firmware and for SCSI servo firmware;

(c) connection means from said local memory means over to a selected one of a plurality of disk drives for temporary storage;

(d) peripheral controller means for loading said SCSI firmware into a first flash PROM and for loading said servo SCSI firmware into a second servo flash PROM;

(e) means to Write said firmware from said first flash and second flash PROMs onto a targeted peripheral controller for a disk unit.

5. (Amended) The system of claim 4 wherein said source means includes control data received from the World Wide Web[.], tape, disk or CD-Rom.

6. (As-is) The system of claim 4 wherein said central processing means includes:

(b1) means for recognizing the number of bytes of firmware to be downloaded;

(b2) selecting a buffer array size which most closely approximates said recognized number of bytes to be downloaded.

7. (As-is) The system of claim 4 wherein said central processing means includes:

(b3) inquiry means to said target controller to acquire identification information;

(b4) means to determine, from said identification information, what version of firmware will be downloaded to said target controller.

8. (Amended) A system for downloading the appropriate SCSI firmware onto a target module controller and overcoming the normal capacity limitations of temporary buffer storage comprising:

(a) source means for providing microcode firmware for a target controller;

(b) processor means having a first and second two-dimensional buffer array means for receiving and buffering said SCSI firmware and SCSI servo firmware destined for said target controller;

(c) means for transferring said SCSI firmware and servo firmware onto a targeted peripheral controller for a disk unit[.];

(d) a library exported interface (USERMAINTREQUEST) for issuing a download command request and an inquiry command to query the target controller;

(e) means to access the appropriate firmware release numbers and servo release numbers to enable a selection of the appropriately proper firmware;

(f) selection means for selecting the appropriate size of said first and second two-dimensional buffer array means to most efficiently store said selected proper firmware.

10. (Amended) The system of claim [9] 8 wherein said inquiry command includes:

> (g) means to check the pre-existing firmware in said target controller to determine whether new updated firmware is required.

11. (As-is) The system of claim 8 which includes means for checking to indicate that the proper firmware has been downloaded to the proper target controller module.

12. (Amended). A method of selecting and downloading the appropriate SCSI firmware and servo firmware for a selected target control module comprising the steps of:

(a) providing a plurality of separate storage media for holding different versions of SCSI firmware appropriate for different types of target control modules;

(b) utilizing a DFAST utility program for initiating a firmware download to a target control module[;] said DFAST program functioning to download firmware to SCSI devices;

(c) inquiring as to the identity and firmware requirements of a selected target control module;

(d) fetching, by a Central Processing Unit, of the appropriate firmware file from said storage media;

(e) selecting a single or double two-dimensional buffer array in relation to the byte count of said appropriate selected firmware for temporary storage;

(f) downloading the selected firmware onto said target control module.

13. (As-is) The method of claim 12 wherein step (c) includes the step of:

> (c1) checking the pre-existing firmware in said target controller to determine whether or not it requires any updating from the selected firmware on the selected storage media.

14. (As-is) A system for rapid downloading, in one command cycle, of SCSI firmware and servo firmware into a target control module, comprising:

(a) means for initiating a SCSI Inquiry Command to said target control module via a Command Descriptor Block;

(b) means to query a designated target control module with information from a Page Code Field;

(c) means for enabling access to and acquiring a firmware page number and a firmware version number for said target control module;

(d) downloading said SCSI firmware data via selected sizes of two-dimensional buffer arrays;

(e) passing said SCSI firmware data onto said target control module.

15. (As-is) The system of claim 14 which includes:

    (f) means to sense when said SCSI Inquiry Command initiates an illegal request.